

(19)



Europäisches Patentamt
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(11) Publication number:

0 490 239 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **91120764.5**(51) Int. Cl.⁵: **G06F 3/06**(22) Date of filing: **03.12.91**(30) Priority: **14.12.90 US 627722**(43) Date of publication of application:
17.06.92 Bulletin 92/25(84) Designated Contracting States:
AT BE CH DE DK ES FR GB GR IT LI LU NL SE(88) Date of deferred publication of the search report:
02.09.92 Bulletin 92/36(71) Applicant: **CERAM INCORPORATED**
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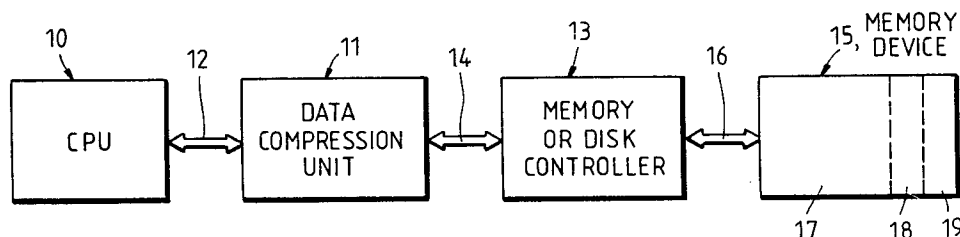
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(54) **Storage of compressed data on random access storage devices.**

(57) A random-access type storage device such as a hard disk or semiconductor memory is formatted to provide multiple partitions of varying block size. The data to be stored is in blocks of fixed size, and these blocks are compressed if the compressed size fits in the block size of a small-block partition in the storage device. If a data block is not compressible to the small block size, it is stored uncompressed in another of the partitions. The memory device also contains a table storing the locations of the blocks in the partitions, so upon recall the block is retrieved from its location, decompressed (if it had been compressed), and sent to the CPU. For example, there may be two partitions, one using the block size of

the original (uncompressed) data, and the other having a block size corresponding to the typical compressed size of the blocks of data (perhaps one-half the size of the original data blocks). The relative number of blocks in each partition (e.g., the physical storage capacity of each partition) is set at the average ratio of compressible blocks to uncompressible blocks for the compression algorithm used. For example, an algorithm may compress 90% of the blocks to 50% of their original size, so a ratio of the number of blocks in the compressed partition to the number of blocks in the uncompressed partition is selected as 90:10.

**FIG.1**



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EUROPEAN SEARCH REPORT

Application Number

EP 91 12 0764

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	COMPUTER TECHNOLOGY REVIEW vol. 10, no. 15, December 1990, LOS ANGELES, CA, US pages 26 - 28; F. HANNON: 'What's Keeping Data Compression Off Disks?' * the whole document *	1	G06F3/06
A	EP-A-0 120 330 (INTERNATIONAL BUSINESS MACHINES CORPORATION) * page 4, line 7 - page 5, line 3 *	1-25	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			G06F
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 22 MAY 1992	Examiner R. ABRAM
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			